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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,601	10/06/2003	Mark E. Popilek	GP-303455	5956

7590 07/12/2006

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EXAMINER

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ART UNIT

PAPER NUMBER

2835

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the previous objection of claims 3, 14 and 15 are persuasive therefore the objection is withdrawn.

Applicant's arguments and amendments with respect to the prior art rejections filed 06/08/2006 have been fully considered but they are not persuasive. Applicant's amendment the preamble of the independent claims detailing the intended use. applicant is reminded the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. MPEP 2111.02 [R-3]

Applicant's newly added limitation to now require the scroll wheel switch to be mounted on an inner portion of the steering wheel column is not considered sufficient to distinguish around the prior art of record, nevertheless the a new ground of rejection is made in view of the additional teachings of Tsai (U.S. Pat. No. 6,567,676) below, hence applicant's additional arguments are considered moot in view of the new ground of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worrell et al. (U.S. Pub. No. 20050021190) in view of Moffi et al. (U.S. Pub. No. 20030109290) further in view of Tsai (U.S. Pat. No. 6,567,676)

With respect to claims 1 and 8 Worrell teaches a motor vehicle control system comprising: a plurality of rotary scroll wheels (see Fig. 3B or see item 82 in Fig. 7 "scroll switches see paragraph 0092 for example teaches the use of more than one scroll switch) and a plurality of switches (Worrell discloses numerous switches such as items 34 and 30), each of the plurality of switches coupled to and actuable by one of the plurality of rotary scroll wheels (Worrell teaches the scroll wheel may be used to actuate the output of switches 34 30 and 26), and each of the plurality of rotary scroll wheels mounted on a steering wheel of the motor vehicle, at least one of the plurality of rotary scroll wheels mounted in an upper right hand quadrant (see paragraph 0078 3 o'clock and 9 o'clock similar location) of the steering wheel and at least one of the plurality of rotary scroll wheels located in an upper left hand quadrant of the steering wheel. Worrell teaches the implementation of the device using a controller (paragraph 0117). Worrell does not teach the placement of a scroll switch on the rim of the steering wheel. Moffi

Art Unit: 2835

teaches the placement of a scroll wheel (item 116) may be placed anywhere within reach of the driver (paragraph 0032) and preferably on the rim of the steering wheel. It would have been obvious to one of ordinary skill in the art at the time of the invention to place the scroll wheel on the rim of the steering wheel in order increase the convenience and usability of the scroll wheel. While the examiner considers the placement of the scroll wheel to the inner portion of the steering wheel rim to be within the teachings of Moffi additionally Tsai teaches the mounting of buttons to inner portion of the steering wheel rim is well known convenient location for the driver to access and control vehicle accessories it would have been obvious to one of ordinary skill in the art at the time of the invention to place the scroll wheel on the inner portion of the steering wheel rim as seen in Tsai in order to increase the accessibility and convenience for the driver.

With respect to claims 9 and 2 Worrell teaches the use of a display unit (item 20) coupled to the control unit and configured to display an indication of the motor vehicle function.

With respect to claim 3 Worrell teaches the switch comprises a rotary switch actuatable Fig. 3 by rotating the scroll wheel about an axis and a linear switch (see Fig. 3 push in) actuatable by pressing the scroll wheel in a direction substantially perpendicular to the axis.

With respect to claim 4 While Worrell teaches the switch may be mounted in any location convenient to the operator and Moffi teaches the scroll switch may be placed on the rim of the steering wheel It would have been obvious to one of ordinary skill in

Art Unit: 2835

the art at the time of the invention to place the scroll switch on the rim of the steering wheel so as to align the axis of the linear switch and the scroll switch so they are substantially perpendicular.

With respect to claims 5 and 18 Worrell teaches the rotary scroll wheel comprises a generally circular cross section having a crenulated periphery, see detail lines indicating crenulations in Fig 7.

With respect to claims 6 and 16 Worrell teaches the rotation of the switch is used to scroll through menus or functions to be controlled and feedback of said scrolling may be seen on the display as the scroll wheel is rotated through a number of degrees.

With respect to claim 7 Worrell as modified by Moffi teaches the remote pad is located on the rim of the steering wheel, it would have been obvious to one of ordinary skill in the art at the time of the invention to move to another location, which may be more convenient for the driver/user to increase usability.

With respect to claim 10 Worrell teaches the placement of a plurality of display units (not pictured see paragraph 0046), each coupled to the control unit and each responsive to a signal from a respective one of the plurality of switches to display an indication of a motor vehicle function.

With respect to claim 11 Worrell teaches the placement a plurality of placements of the rotary scroll wheels to meet the convenience of the operator i.e. front, back, middle or the side of the steering wheel.

With respect to claim 12-13 Worrell teaches the rotary switches which are used it actuate specific motor vehicle function and each of the plurality of rotary scroll wheels

Art Unit: 2835

can be configured cause a specified motor vehicle function to react to a signal from an associated one of the plurality of rotary scroll wheels, see Fig 14-5 or 26 which shows menu diagrams vehicle functions which may be selected with the scroll wheel.

With respect to claim 14 Worrell teaches the scroll wheels contain rotary type switches, which are actuated by the rotation of the scroll wheel as well as linear push in type of switch, which is pushed in a direction perpendicular to the axis of rotation.

With respect to claim 15 Worrell teaches the axis is substantially parallel to a radius of the steering wheel rim (see Fig. 7 for example).

With respect to claim 17 Worrell teaches the linear switch provides similar feedback as the rotation of the scroll wheel, such as the operator tactile feedback of pressing the linear switch the display indicates the operator's selection.

With respect to claim 25 Worrell teaches controlling the a motor vehicle having a plurality of rotary scroll wheels mounted on a steering wheel of the motor vehicle, each rotary scroll wheel controlling one of a plurality of rotary switches and one of a plurality of linear switches (see in Fig. 3B for example Worrell teaches the scroll wheel may be pushed in), each of the plurality of rotary switches and each of the linear switches coupled to a control unit and the control unit (paragraph 0117) coupled to a display (item 20). Worrell teaches a menu is displayed see for example Fig 14-5 or 26 and Worrell teaches select one of the plurality of motor vehicle functions in response to activation of one of the linear switches. Worrell further teaches the use of submenus see Fig. 26 for example primary menu, secondary menu, phone list and add sub menu button also see paragraphs 0113-0118 for a detailed description of the graphical

Art Unit: 2835

interface. Worrell also teaches the activation or selection of a function in response to rotation of a scrolling switch and or the use of pushbutton or linear type switches.

Worrell does not teach the placement of a scroll switch on the rim of the steering wheel.

Moffi teaches the placement of a scroll wheel (item 116) may be placed anywhere within reach of the driver (paragraph 0032) and preferably on the rim of the steering wheel. It would have been obvious to one of ordinary skill in the art at the time of the invention to place the scroll wheel on the rim of the steering wheel in order to increase the convenience and usability of the scroll wheel. While the examiner considers the placement of the scroll wheel to the inner portion of the steering wheel rim to be within the teachings of Moffi additionally Tsai teaches the mounting of buttons to inner portion of the steering wheel rim is well known convenient location for the driver to access and control vehicle accessories it would have been obvious to one of ordinary skill in the art at the time of the invention to place the scroll wheel on the inner portion of the steering wheel rim as seen in Tsai in order to increase the accessibility and convenience for the driver.

With respect to claim 26 Worrell teaches the activation of the menu of motor vehicle functions in response to rotation of one of the plurality of rotary scroll wheels to select the one of the plurality of menu of motor vehicle functions and confirmation of the selection by pushing the one of the plurality of rotary scroll wheels to click one of the plurality of linear switches.

With respect to claim 27-28 Worrell teaches the using the scroll switches to control the vehicles cruise control speed see paragraph 0115.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2835


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW


LYNN FEILD
SUPERVISORY PATENT EXAMINER